Please amend the claims as follows:

1. (Amended) A recombinant human iduronate 2-sulfatase (IDS) [or or fragment thereof retaining enzymatic activity] wherein said recombinant IDS is more highly glycosylated than the naturally occurring enzyme isolated from human tissue and wherein said recombinant human IDS [or fragment thereof] is produced in Chinese Hamster Ovary (CHO) cells.

3. (Amended) A pharmaceutical composition useful for treating patients suffering from a deficiency in iduronate 2-sulfatase (IDS) comprising one or more pharmaceutically acceptable carriers or diluents and a recombinant human IDS [or an enzymatically active fragment thereof] wherein said recombinant human IDS [or enzymatically active fragment thereof] is produced in Chinese Hamster Ovary (CHO) cells and is more highly glycosylated than the naturally occurring enzyme isolated from human tissue.

5. (Amended) A recombinant human iduronate 2-sulfatase (IDS) having the sequence of SEQ ID [NO:1] NO:2 produced in Chinese Hamster Ovary (CHO) cells wherein said recombinant IDS has a longer half-life than native IDS produced by human liver cells.

6. (Amended) A recombinant human iduronate 2-sulfatase (IDS) having the sequence of SEQ ID [NO:1] NO:2 produced in Chinese Hamster Ovary (CHO) cells wherein said recombinant IDS is taken up by mucopolysaccharidosis cells to a greater degree than native IDS produced by human liver cells.

7 ~~11~~. (Amended) A recombinant iduronate 2-sulfatase (IDS) [or fragment thereof retaining enzymatic activity wherein said IDS or fragment thereof] which is more highly glycosylated than IDS isolated from human tissue and wherein said recombinant IDS [or fragment thereof] comprises a fusion protein ~~having a proteinaceous molecule~~

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9 ~~16~~. (Amended) A recombinant human iduronate 2-sulfatase (IDS) [or fragment thereof retaining enzymatic activity] wherein said IDS [or fragment thereof] is produced in a human cell and wherein said IDS [or fragment thereof] is more highly glycosylated than IDS isolated from human tissue.

10 ~~17~~. (Amended) A recombinant human iduronate 2-sulfatase (IDS) [or fragment thereof] according to Claim ~~16~~ 9 wherein said human cell is a fibroblast.

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11 ~~18~~. (Amended) The recombinant human iduronate 2-sulfatase (IDS) [or fragment thereof] of Claim ~~17~~ 10 wherein the fibroblast is a human diploid fibroblast.

12 ~~19~~. (Amended) The recombinant human iduronate 2-sulfatase (IDS) [or fragment thereof] of Claim ~~17~~ 10 wherein the fibroblast is from a human fibroblast cell line.

13 ~~20~~. (Amended) The recombinant human iduronate 2-sulfatase (IDS) [or fragment thereof] of Claim ~~19~~ 12 wherein the human fibroblast cell line is SF-635, SF-1779, or SF-3409.

14 ~~21~~. (Amended) A pharmaceutical composition useful for treating patients suffering from a deficiency of iduronate 2-sulfatase (IDS), said composition comprising one or more pharmaceutically acceptable carriers or diluents and a recombinant

IDS [or fragment thereof retaining enzymatic activity] wherein said recombinant IDS [or fragment thereof] is more highly glycosylated than IDS isolated from human tissue.

C5 Cancl 15 ~~22~~. (Amended) The pharmaceutical composition of Claim ~~21~~ 14 wherein said recombinant iduronate 2-sulfatase (IDS) [or fragment thereof] is produced in a eukaryotic cell.

REMARKS

In response to the Office Action of January 12, 2000, Applicants have amended the claims, which when considered with the following remarks, is deemed to place the present application in condition for allowance. Favorable consideration of all pending claims is respectfully requested.

In the Office Action of January 12, 2000, the Examiner has indicated an unwillingness to rejoin claims 27-31 of Group III to the elected claims 1-6, 11-12, and 16-26 of Group I. By this amendment, claims 7-10, 13-15 and 27-31 are canceled without prejudice. Applicants reserve the right to file one or more divisional applications directed to the subject matter of the canceled claims.

Claim 1 has been objected to for reciting "or or fragment thereof" rather than "or a fragment thereof." In response to other rejections made by the Examiner, the recitation of "or a fragment thereof" has been deleted from the claims. The objection to claim 1 is therefore moot.

Claims 1-6, 11-12, and 16-26 have been rejected under the judicially created doctrine of double patenting over claims 1-29 of

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